

CLAIMS

What is claimed is:

1. A reclining chair comprising:

a chair frame assembly including a pair of side frame members, a front cross member secured to a front portion of said side frame members and a rear cross rail secured to a rear portion of said side frame members;

an actuation mechanism having a drive rod extending between said side frame members;

a leg rest assembly including a pantograph linkage; and

a clutch mechanism operably coupled between said pantograph linkage and said drive rod, said clutch mechanism operably in a first direction to couple said drive rod and said pantograph linkage for positioning said leg rest assembly from a retracted position towards an extended position and operably in a second direction to uncouple said drive rod and said pantograph linkage.

2. The reclining chair of claim 1 wherein said clutch mechanism comprises a drive link operably coupled to said drive rod for rotation therewith, a follower link journally supported from said drive rod for rotation thereabout and a swing link journally supported from said chair frame assembly, said pantograph linkage coupled to said swing link and said follower link, said drive link engaging said follower link when said drive rod is rotated in a first direction for positioning said leg rest assembly from a retracted position towards an extended position.

3. The reclining chair of claim 1 further comprising a return spring connected between said chair frame and said activation mechanism to bias said drive rod for rotation in a second direction.

4. The reclining chair of claim 3 further comprising a cantilevered support bracket extending from said chair frame at a first end and connected to said return spring at a second end.

5. The reclining chair of claim 4 wherein said support bracket is releasably connected to said rear cross rail.

6. The reclining chair of claim 1 further comprising a drive motor operably coupled to said drive rod to rotate said drive rod.

7. The reclining chair of claim 6 wherein said drive rod extends through said drive motor.

8. The reclining chair of claim 9 further comprising a motor mount extending between said drive motor and said chair frame assembly to secure said drive motor to said actuation mechanism.

9. The leg rest assembly of claim 1 wherein said drive link comprises a first portion receiving said drive rod and a second portion extending from said first portion and engaging said follower link when said drive rod is rotated in a first direction.

10. The leg rest assembly of claim 1 wherein said follower link comprises a first portion extending parallel to said drive rod and a second portion extending away from said drive rod, said second portion having an edge engaging said drive link when said drive rod is rotated in said first direction.

11. The leg rest assembly of claim 1 further comprising a spacer link extending between said drive rod and said front cross member, said spacer link having a first brace rotatably supporting said drive rod and a second brace secured to said first cross member, said first and second braces being releasably secured together between said drive rod and said support shaft.

12. A leg rest assembly positionable between a retracted position and an extended position, said leg rest assembly comprising:

a drive link operably coupled to an actuation mechanism for rotation therewith;

a pantograph linkage interconnecting a leg rest panel and the actuation mechanism for coordinated articulated movement between a retracted position and an extended position, said pantograph linkage including a follower link rotatably supported from said actuation mechanism and a swing link rotatably supported from said actuation mechanism, said drive link engaging said follower link when said actuation mechanism is rotated in a first direction for positioning said leg rest panel from said retracted position to said extended position; and

a return spring mechanism biasing said pantograph linkage towards said retracted position.

13. The leg rest assembly of claim 12 wherein said actuation mechanism further comprises a drive rod and a support shaft, said drive link coupled to said drive rod for rotation therewith, said follower link journally supported from said drive rod for rotation thereabout and said swing link journally supported from said support shaft for rotation thereabout.

14. The leg rest assembly of claim 13 wherein said drive link comprises a first portion receiving said drive rod and a second portion extending from said first portion and engaging said follower link when said drive rod is rotated in a first direction.

15. The leg rest assembly of claim 13 wherein said follower link comprises a first portion extending parallel to said drive rod and a second portion extending away from said drive rod, said second portion being an edge engaging said drive link when said drive rod is rotated in said first direction.

16. The leg rest assembly of claim 13 further comprising a spacer link extending between said drive rod and said support shaft.

17. The leg rest assembly of claim 16 wherein said spacer link comprises a first brace rotatably supporting said drive rod and a second brace secured to said support shaft, said first and second braces being releasably secured together between said drive rod and said support shaft.

18. The leg rest assembly of claim 12 further comprising a drive motor operably coupled to said actuation mechanism to rotate said drive link.

19. The leg rest assembly of claim 18 wherein said actuation mechanism further comprises a drive rod extending through said drive motor, said drive link being to said drive rod.

20. The leg rest assembly of claim 18 further comprising a motor mount extending between said drive motor and said actuation mechanism to secure said drive motor.

21. A reclining chair comprising:

a chair frame assembly including a pair of side frame members, a front cross member secured to a front portion of said side frame members and a rear cross rail secured to a rear portion of said side frame members;

an actuation mechanism having a support shaft extending between said side frame members and secured to said front cross member assembly, a drive motor secured to said support shaft between said side frame members and a drive rod extending between said side frame members and operably coupled to said drive motor;

a leg rest assembly including a drive link operably coupled to said drive rod for rotation therewith, a follower link journally supported from said drive rod for rotation thereabout, a swing link journally supported from said support shaft for rotation thereabout and a pantograph linkage coupled to said swing link and said follower link, said drive link engaging said follower link when said drive rod is rotated in a first direction for positioning said leg rest assembly from a retracted position towards an extended position; and

a return spring mechanism biasing said pantograph linkage towards said retracted position, said return spring mechanism having a support bracket releasably connected to said rear cross rail and a spring member interconnected between said support bracket and said pantograph linkage.

22. A power-assisted reclining chair comprising:
- a chair frame assembly including a pair of side frame members, a front cross member secured to a front portion of said side frame members and a rear cross rail secured to a rear portion of said side frame members;
 - a drive motor located between said pair of side frame member;
 - an actuation mechanism having a drive rod extending between said side frame members and through said drive motor.